

TOTAL RECOVERABLE PHENOLICS BY SEMI-AUTOMATED COLORIMETRY EPA 420.4 REVISION 1.0 1993					
Facility Name: _____ VELAP ID: _____					
Assessor Name: _____ Analyst Name: _____ Inspection Date: _____					
Relevant Aspect of Standards	Method Reference	Y	N	N/A	Comments
Records Examined: SOP Number/ Revision/ Date _____ Analyst: _____					
Sample ID: _____ Date of Sample Preparation: _____ Date of Analysis: _____					
Was reagent water determined to be free of analytes of interest?	7.1				
Were samples collected in glass bottles only?	8.1				
Were sample bottles thoroughly cleaned with reagent water?	8.1				
Were samples preserved from the time of collection with H <sub>2</sub> SO <sub>4</sub> to a pH < 2 at 4°C?	8.2				
Were preserved samples held at 4°C but for not longer than 28 days?	8.3				
Were LCRs determined initially, every six months, or whenever a significant change in instrumentation was made?	9.2.2				
Did verifications of linearity consist of at least three standards and a blank?	9.2.2				
Did verifications of linearity yield data that did not exceed ±10% of initial values without recalibration?	9.2.2				
Did second-source QCS fall within ±10% of stated values after every calibration?	9.2.3 10.7				
Was an LRB analyzed with every batch of samples?	9.3.1				
Was an LFB analyzed with every batch of samples and determined to be either 90 to 110% of stated value or within ±3 standard deviations of historical data?	9.3.2 9.3.3				
Was a mid-range IPC analyzed following each daily calibration, every tenth sample, and the close of each run to be within ±10% of stated value?	9.3.4				
Were calibration blanks analyzed following each daily calibration, every tenth sample, and the close of each run?	9.3.4				
Notes/Comments:					

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Were LFMs analyzed at a minimum rate of 10% of samples?	9.4.1				
Were LFMs duplicate aliquots of samples and fortified to be no less than four times the MDL?	9.4.1				
Were LFM recoveries between 90 and 110% unless LFM failures were determined to be due to matrix interference?	9.4.2 9.4.3				
Was at least one standard and a blank distilled in the same way as samples and determined to be within $\pm 10\%$ of like calibration standard? (Treating Calibration Standards in the same ways as samples <b>not</b> mandatory.)	10.2				
Before distillation, were standards adjusted to a pH of 4 with $H_2SO_4$ ?	10.2				
Were reagents pumped until baselines were achieved?	10.4				
Did the laboratory have limits between the measured values of calibration standards and their true values? (No specifics given in method.)	10.6				
Were sample pHs adjusted to approximately 4 prior to distillation?	11.1.1				
Were samples distilled by first distilling most of the sample volume, diluting the remaining sample volume, and finally distilling until the full sample volume was collected?	11.1.2				
Were instrument warm-up periods and stabilization times sufficient for the removal of residual phenolics?	11.4				
Were standards analyzed in order of decreasing concentration?	11.5				
Were samples that exceeded the calibration range diluted and reanalyzed?	12.2				
Notes/Comments:					